Efficiency of a low cost filter on the treatment of Chemical Oxygen Demand (COD) and Turbidity of rice and paper mill effluents: An investigation using a bench-scale model

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A study that was carried out to find out the efficiency of Low cost filter on the treatment of wastewater from Rice and Paper mills is presented in this paper. The aim of the study was to evaluate the performance and efficiency of different kinds of filtering media used in the treatment unit of the filter (that is intended for the separation/removal of Chemical oxygen demand (COD) and Turbidity found in the wastewater). Cost effective and locally available media such as partially burnt coconut shell, sea sand, river sand, partially burnt paddy husk and clay were used in the wastewater treatment unit. The results of the study reveal that the combination of Sea sand + Activated carbon + Clay is very suitable and efficient for the separation/removal of COD. Similarly, Sea sand was found to be an excellent media for the separation/removal of Turbidity found in the wastewater.

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